

REMARKS

Applicants respectfully traverse and request reconsideration.

Applicants cancel claims 4-6, 11, 23 and 24 without prejudice.

Claims 1-9, 11-17, 19-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hung in view of Perez. For example, in claim 1, the claim is directed to a system that can test digital graphics data that utilizes video graphics port and serial data interfaces to receive digital data from a test apparatus once the test apparatus has calculated for example test values based upon the digital graphics data. As required by this term, digital graphics data requires, for example, digital data that is displayed for example on a digital display device such as a flat panel display.

In contrast, both the Hung reference and Perez reference are directed to systems that employ analog video signals and do not test or communicate digital graphics data as claimed. For example, the Hung reference is distinguishable for several reasons. The office action alleges that Hung shows a method for testing digital graphics data provided by a unit under test, such as digital data for a flat panel display. However, Applicants respectfully point out that the Hung reference is not a method for testing digital graphics data and does not provide digital graphics data to a digital graphics port, such as a connector or a digital graphics connector of a graphics controller under test nor does it send calculated characteristic information from a serial data port of the test apparatus to a serial data interface of the digital graphics port of a graphics controller. For example, the Hung reference is directed to testing analog signals and requires digital to analog converters and other circuitry that is unnecessary for Applicants' claimed testing system. In addition, the Hung reference appears to require not only a VGA analog connector but also an expansion slot in the unit under test from which to communicate test information back to control logic of a test system. Applicants claim a different method and structure. Since the Hung reference does not test digital graphics data that is has received, for example, through a digital

graphics port of a graphics controller or other digital graphics data from a graphics source, Applicants respectfully submit that the claims are in condition for allowance.

Moreover, Applicants agree that Hung fails to teach, among other things, ports or interfaces to a graphics controller or use of a graphics controller as claimed. However Perez is also directed to a different test apparatus and appears to not be directed to the testing of digital graphics data as required, in fact it appears that Perez teaches a completely different system. For example, as shown in Perez, the video signals in Perez, like those in Hung, are analog signals. In Perez, no digital port is disclosed which communicates the digital graphics data. To the contrary, a separate digital link 260 does not communicate digital graphics data for testing. Applicants' claimed method avoids the need for circuits 230 and portions of 240. Although Perez teaches communicating the results of a test back to the unit under test over a digital display channel within a VGA connector, the system of Perez does not utilize a digital graphics port to receive digital graphics data for test as required by the claims. As such, even combining Perez with Hung would result in a system that employed a separate digital link that communicated test results back but the same link would not be used to communicate digital data as Perez does not communicate digital graphics data for test. As such, the combination of these references does not render the Applicants' invention obvious.

In addition, the dependent claims add additional novel and non-obvious subject matter. For example, as noted in claim 12, the graphics output port includes an output port for a flat panel display which is a digital display. The connector port of Hung outputs analog signals to a video signal selection multiplexer. As noted in Hung, the analog video signals are selectively multiplexed to the delay circuit. There does not appear to be a digital serial interface.


As to claim 14, Applicants respectfully reassert the relevant remarks made above. For example, the claim requires receiving digital graphics data at a graphics port of a graphics test apparatus. Such a structure is not disclosed as noted above.

As to claim 19, the claim as amended, requires, among other things that the connector in the apparatus for testing digital graphics data receives the digital graphics data sent from a graphics controller as well as a graphics data analyzer and serial bus interface as claimed. Such a digital connector is not taught by the cited references as they do not require such a structure. Accordingly, this claim is also in condition for allowance.

Accordingly, Applicants respectfully submit that the claims are in condition for allowance, and that an early Notice of Allowance be issued in this application. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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